

Assignment 3

Textbook Assignment: "Carbon Dioxide Transfer Equipment." Pages 3-1 through 3-13.

<hr/>		3-5.	How many pounds of CO ₂ are there in a standard supply cylinder?
Learning Objective: Relative to CO ₂ transfer equipment, recognize their components, construction and operating features, and servicing and maintenance procedures, including the replacement of packings and safety disc.		1.	38 lb
		2.	40 lb
		3.	50 lb
		4.	100 lb
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3-1.	Which of the following companies manufacture(s) CO ₂ transfer pumps?	1.	2050 to 2100 psig
	1. C-O-Two Fire Equipment	2.	2250 to 2300 psig
	2. Walter Kidde	3.	2500 to 3000 psig
	3. Both 1 and 2 above	4.	2650 to 3000 psig
	4. Bendix Engineering	3-7.	What prevents any recoil in the event the safety disc ruptures?
3-2.	Which of the following methods is used to take up any slack in the drive belt on a SC-5 CO ₂ transfer unit?	1.	Recoil valve
	1. Adjust the adapter on the drive pulley	2.	Safety valve
	2. Slide the motor on the adjustable base	3.	Safety disc nut
	3. Replace the drive belt	4.	Defuser
	4. Adjust the drive shaft	3-8.	The SC-5 CO ₂ pump requires which of the following types of oil?
3-3.	The SC-5 CO ₂ pump is designed to work with a pressure of how many pounds per square inch?	1.	10 W 40
	1. 2000	2.	10 W 30
	2. 2750	3.	SAE 20
	3. 3000	4.	SAE 30
	4. 3500	3-9.	Which of the following motors is standard equipment on the SC-5 transfer unit?
3-4.	The SC-5 CO ₂ Transfer pump will transfer approximately how many pounds of CO ₂ out of a full supply cylinder?	1.	1/2 horsepower
	1. 38 lb	2.	1 horsepower
	2. 50 lb	3.	1 1/2 horsepower
	3. 80 lb	4.	2 horsepower
	4. 100 lb		

- 3-10. When adding oil to the SC-5 CO₂ transfer pump that does not have a dip stick, you should fill the crankcase with oil to what level?
1. One-eighth of an inch from the top of the cup
 2. One-fourth of an inch from the top of the cup
 3. To the fourth thread
 4. To the first thread
- 3-11. Other than the crankcase, how many different lubrication points are required on the SC-5 transfer unit?
1. One
 2. Two
 3. Three
 4. Four
- 3-12. When lubricating the idler gear and the puny shaft, you should use what type of lubricant?
1. SAE 20 oil
 2. SAE 30 oil
 3. Vaseline
 4. Light cup grease
- 3-13. Motor bearings contain enough grease to keep the bearings lubricated for approximately how long?
1. 1 year
 2. 2 years
 3. 30 days
 4. 6 months
- 3-14. If it is necessary to wire the SC-5 CO₂ pump for 220 power, where can you find information on the wiring diagram?
1. In NAVAIR 13-1-6.1
 2. In NAVAIR 13-1-6.2
 3. In OPNAV 5510.1E
 4. On the pump's nameplate
- 3-15. If you are required to change the electrical plug on a SC-5 CO₂ unit, the ground wire is which of the following colors?
1. Red
 2. Green
 3. White
- 3-16. Carbon dioxide is stored under (a) what pressure and (b) at what temperature?
1. (a) 850 psig (b) 70°F
 2. (a) 1800 psig (b) 70°F
 3. (a) 2900 psig (b) 60°F
 4. (a) 3000 psig (b) 60°F
- 3-17. What is the purpose for running-in a new pump or one that has been idle for a long time?
1. To check for lubrication
 2. To check for leaks of CO₂
 3. To loosen the bearing packings
 4. To tighten the bearing packings
- 3-18. Which of the following wrenches is used to tighten fittings and connections on the C-O-Two unit?
1. A 10-inch wrench
 2. A 12-inch wrench
 3. A pipe wrench (13 inches)
 4. A crescent wrench (13 inches)
- 3-19. Which of the following statements concerning a supply cylinder is NOT true?
1. A supply cylinder weighs 50 pounds
 2. The maximum capacity of a supply cylinder is 50 pounds
 3. 10 pounds of the contents may be gaseous
 4. 40 pounds of the contents may be liquid
- 3-20. A cool supply cylinder will transfer its contents more efficiently than a warm one.
1. True
 2. False
- 3-21. The time required to charge an empty cylinder increases with increased temperature of the cylinder.
1. True
 2. False
- 3-22. A large cylinder will recharge faster if it is placed in an upright position.
1. True
 2. False
- 3-23. To prevent expansion of CO₂ in the supply hose, the valve should have an opening of at least
1. 1/8 inch
 2. 1/4 inch
 3. 3/4 inch
 4. 1 inch

- 3-24. How often is the idler shaft lubricated?
1. Every 30 days
 2. Every 6 months
 3. Every year
 4. Every 2 years
- 3-25. Gear teeth should be lubricated with
1. a thin coating of light cup grease
 2. a thick coating of light cup grease
 3. SAE 30 motor oil
 4. a thin coating of Vaseline
- 3-26. The piston rod should be lubricated every 6 months with a light coating of
1. light cup grease
 2. Vaseline
 3. gear grease
 4. SAE 30 motor oil
- 3-27. What should you use to clean the motor commutator on the Sc-5 CO₂ transfer unit?
1. A dry piece of lint-free cloth
 2. A piece of cloth dipped in dry cleaning solvent
 3. Freon Type II
 4. Freon Type I
- 3-28. How often should you change the oil in the crankcase of the Sc-5 CO₂ transfer pump?
1. Every 10 days
 2. Every 21 days
 3. Annually
 4. Every 2 years or biannually
- 3-29. What procedure must you use to lubricate the bearing housing on the electric motor?
1. Use a grease gun
 2. Disassemble the complete unit
 3. Disassemble the bearing housing
- 3-30. The electric motor bearings should be lubricated every 2 years. Before lubricating the bearings, you should clean them with
1. carbon tetrachloride
 2. toluene
 3. Stoddard solvent
 4. dry cleaning agent
- 3-31. How much grease should you apply to each bearing?
1. 1 or 2 shots of light cup grease
 2. Add grease until it flows freely from grease cups
 3. One-half ounce of grease
 4. 1 ounce of grease
- 3-32. When should you replace the piston rod packing on the SC-5 transfer pump?
1. Every 250 operating hours
 2. Every 500 operating hours
 3. Yearly
 4. Every 2 years
- 3-33. What is the purpose of the flanged-type packing nut?
1. It serves only to hold the pecking in place
 2. It is used to reduce leaks in the packing
 3. It is used as an adjustment for proper CO₂ pressure
- 3-34. The Walter Kidde transfer unit comes with which of the following motors?
1. One-fourth horsepower
 2. One-half horsepower
 3. Three-fourths horsepower
 4. 1 horsepower
- 3-35. The safety disc used in the Walter Kidde pumps has a range of
1. 2500 to 2750 psi
 2. 2650 to 3000 psi
 3. 2750 to 3000 psi
 4. 2900 to 3000 psi
- 3-36. The motor for the Walter Kidde transfer unit operates at
1. 550 rpm
 2. 1500 rpm
 3. 1750 rpm
 4. 2000 rpm
- 3-37. The multibreaker on the Walter Kidde unit is designed to protect the unit. It operates on what total number of amperes?
1. 5 amp
 2. 15 amp
 3. 20 amp
 4. 30 amp

- 3-38. How is the multibreaker reset on a Walter Kidde unit?
1. By replacing the blown fuse
 2. By resetting the breaker box
 3. By turning the ON/OFF switch to OFF then to ON
- 3-39. Which motor oil is used in the crankcase of the Walter Kidde unit?
1. SAE 10 W 40
 2. SAE 10
 3. SAE 20
 4. SAE 30
- 3-40. Which of the following directive take precedence over the procedures outlined in the manufacturer manual?
1. OPNAV
 2. NAVAIRSYSCOM
 3. 4790.2B
- 3-41. What size wrench is recommended by Walter Kidde to tighten connecting joints?
1. 6 in.
 2. 8 in.
 3. 10 in.
 4. 12 in.
- 3-42. How often should you change the oil in the Walter Kidde crankcase?
1. After 150 hours of operation
 2. After 500 hours of operation
 3. Every year
 4. Every 2 years
- 3-43. How much oil does the Walter Kidde crankcase hold?
1. 1 pint
 2. 2 pints
 3. 1 quart
 4. 2 quarts
- 3-44. If a leak should develop at the lower end of the plunger on the Walter Kidde unit, what type of tool should you use to correct the problem?
1. A special rod approximately 3/8 inch x 6 inches
 2. A special rod approximately 1/2 inch x 6 inches
 3. A one-half inch box end wrench
 4. A three-eighths inch box end wrench
- 3-45. The ICC requirement for testing a CO₂ cylinder requires that the cylinder be tested at what pressure?
1. Twice the working pressure
 2. Three times the working pressure
 3. Five-thirds the working pressure
- 3-46. How often should a cylinder be hydrostatically tested?
1. Every 5 years
 2. Every 2 years
 3. Every 3 years
 4. Every 7 years
- 3-47. Winterized extinguishers can be identified by
1. yellow dots three-fourths of an inch on opposite sides of each other
 2. one three-fourths of an inch yellow dot on the shoulder of the cylinder
 3. two black dots
 4. a 1-inch yellow band
- 3-48. How much nitrogen is required to winterize a CO₂ cylinder?
1. 100 psi
 2. 200 psi
 3. 300 psi
 4. 400 psi
- 3-49. What maximum temperature can a winterized cylinder be subjected to without rupturing the safety disc?
1. 80°F
 2. 110°F
 3. 150°F
 4. 160°F
- 3-50. To replace a safety disc on F/U-6/P cylinder, you need a torque wrench, a five-sixteenth inch socket and a
1. piece of hex stock 5/16 x 2 inches
 2. 3/8 x 6 inches rod
 3. 1/2 x 6 inches rod